

**Revised FS Chemical of Concern (COC) Issue 2.2. Draft Action Items for 27-Feb-14 Meeting.**<sup>1</sup>

## Meeting Action Items:

1. ~~EPA supply final COC table to LWG (there was at least one change noted during the meeting). EPA supplied this table on 3-Mar-14 and an update on 14-Mar-14.~~
2. ~~LWG (Laura Kennedy) will double check whether there are any other chemicals that were in BHHRA Table 7-1 that did NOT make it through to EPA's COC list. [Given EPA has updated their COC table, the LWG considers this step done. Additional EPA PRG table revisions were provided on 12-Apr-14.]~~
3. ~~LWG (John Toll) will go back and see how dieldrin and aldrin were evaluated in BERA to determine whether LWG agrees with aldrin as a COC. [This review complete. LWG does not agree that Aldrin is a COC.]~~
4. ~~EPA and LWG PRG technical group to discuss on March 4 how EPA's new TEQ fish consumption PRG was calculated. This was discussed on 4-Mar-14.~~
5. ~~LWG (Gene Revelas) will provide the updated range of background values for the RI consistent with the negotiated RI Section 7 approaches, including associated minor statistical adjustments recommended by Integral on 27-Feb-14, for use in the FS.~~
6. ~~LWG (AnchorQEA) will review EPA's PRG and background tables to determine if potentially critical FS COCs are missing background values. If so, LWG will calculate background values if data is available. [No missing background values were found.]~~
7. EPA will develop and provide information on the additional background methods that may be used in the revised FS at least two weeks before 27 June 2014.
  - ~~LWG (Carl Stivers) will identify the dates by which this information should be made available to support related future issue resolutions.~~
  - ~~These dates have been identified as the meeting dates for alternatives screening and detailed evaluation discussions. These are Issues 3.14 and 4.11 slated to be resolved by 27-June-14 and 26-Sep-14, respectively. The LWG suggests EPA provide this background methods information at least two weeks before the 27-June-14 date.~~

FS Revision Process Matrix Outstanding COC Action Items:

1. ~~LWG review of EPA updated COCs table by April 25 was added to the matrix. [Done. LWG provided list of outstanding issues on 23-Apr-14.]~~

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<sup>1</sup> Items completed are indicated with strikethrough.

### Revised FS Preliminary Remediation Goals (PRG) Issue 2.3. Draft Action Items for 4-Mar-14 Meeting.<sup>1</sup>

Meeting Action Items: (These were not discussed at the end of the meeting due to lack of time, but were mentioned during the course of the meeting)

1. EPA will correct Arsenic cancer beach PRG cut and paste error.
2. ~~LWG to investigate a potential proposal for resolving the in-water sediment site use factor in the calculation of these PRGs.~~ [Investigation complete and was discussed at 18-Mar-14 meeting.]
3. ~~LWG may investigate ways to better calculate a TEQ PRG that addresses EPA's stated concerns.~~
4. ~~EPA agreed that tissue PRGs need to be converted from fillet to whole body in the PRG table.~~ [EPA's 14-Mar-14 PRG table notes the values are for fillet comparison.]
5. ~~EPA is going to consider whether 2/24 samples exceeding the HQ>1 for the spotted sandpiper DDx warrants a PRG being carried forward into the FS, and if we do, where does it go?~~ [This appears to be resolved through item 7.]
6. ~~EPA agreed to delete lead and antimony as Eco. PRGs (due to "sinker" issue).~~
7. ~~LWG will provide full list of Eco. PRGs with HQ<1 to Burt. (John Toll sent this 4-Mar-14.) Burt to review and reply with a rationale for having PRGs for these chemicals or not.~~ [Through further discussions EPA has removed the DDx PRGs related to osprey egg LOE, dietary dose for hooded merganser LOE, and dietary dose for belted kingfisher LOE. The status of the osprey and bald eagle dietary dose PRGs for PeCDF and total DDx appears to be that EPA is still considering those].
8. ~~Remaining water PRGs questions and any additional LWG questions from EPA's 2-Mar-14 PRGs information will be discussed in 18-Mar-14 meeting.~~ [These items were discussed at the 27-Mar-14 meeting.]

FS Revision Process Matrix Outstanding PRG Action Items:

1. ~~EPA provide write up of BaPEq PRG [reiterated on 27-Mar-14]. EPA will provide calculations used to develop BaPEq PRG. Spatial scale application of BaPEq to be discussed during 4/15 meeting.~~ [Done – provided on 12-Apr-14] The EPA write-up will be provided with the Section 2 write-up at a later date (Updated per 4/7/2014 email from Kristine Koch)
2. ~~EPA share PRG calculations. (EPA provided direct contact PRG calculations on 2-Mar-14. The LWG's understanding was that all PRG calculations would be provided by EPA at some point.)~~ [EPA provided an additional calculation spreadsheet on 18-Mar-14.]
3. ~~LWG to review 12-Apr-14 EPA update of PRGs tables by 25-Apr-14 was added to matrix.~~ [Done. LWG provided outstanding PRG issues list on 23-Apr-14.]

<sup>1</sup> Items completed are indicated with strikethrough.

**Revised FS Remedial Action Levels (RALs) Issue 3.3. Draft Action Items for 13-Mar-14 Meeting.<sup>1</sup>**

## Meeting Action Items and Resolutions:

1. ~~LWG provide additional benthic risk area maps showing PEC and PEL exceedances. This was sent on 13-Mar-14 and the technical leads discussed on 13-Mar-14. Additional discussions to take place on 18-Mar-14, as needed.~~ [Additional discussions completed at 18-Mar-14 meeting.]
2. The level of incorporation and integration of the DDx RALs into the revised FS various analyses and presentations will be discussed further at an upcoming meeting.
3. EPA will provide LWG with the SDU and SMA shapefiles and supporting information.
4. Resolution: EPA will present D/F TEQ as the required RALs in the revised FS. The revised text will explain that PCDF levels are used in mapping and other analyses as a close approximation of TEQ RALs for logistical reasons. EPA indicated this should be discussed as part of SMAs since SMAs are defined by RALs. (Updated per 4/7/2014 email from Kristine Koch)
5. TEQ PRG to be discussed again at an upcoming meeting. [This item was not discussed at the 18-Mar-14 or 27-Mar-14 meetings.] EPA indicated this is a RAL issue instead of a PRG issue. (Updated per 4/7/2014 email from Kristine Koch)
6. ~~EPA to provide an updated PRG list by 14-Mar-14.~~ [EPA provided updated list on date noted. Additional revisions provided on 12-Apr-14.]
7. The level of incorporation and integration of the BaPEq RALs in the navigation channel into the revised FS various analyses and presentations will be discussed further at an upcoming meeting.] EPA indicated this should be discussed as part of SMAs since SMAs are defined by RALs. (Updated per 4/7/2014 email from Kristine Koch)

FS Revision Process Matrix Outstanding RAL Action Items: None.

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<sup>1</sup> Items completed are indicated with strikeout.

**Revised FS COC and PRGs Second Meeting - Issues 2.2 and 2.3. Draft Action Items for 18-Mar-14 and 27-Mar-14 Meetings.<sup>1</sup>****18-Mar-14 Meeting Action Items and Resolutions:**

1. Resolution: It was agreed that EPA would move the PCB PRG of 64 ppb under RAO 5 to RAO 6. This is because the PRG is bioaccumulation related and RAO 6 pertains to bioaccumulation risks. Per 4/4/2014 email from Kristine Koch, EPA did not agree to this. [EPA changed the value to 126 ppb in 12-Apr-14 version, which LWG reviewed and determined was still an outstanding issue (i.e., the derivation of the new PRG is unclear.)]
2. ~~EPA will provide final PRGs for dioxin/furan TEQ and PCBs for RAO 6.~~ [EPA provided new values in 12-Apr-14 version. LWG reviewed the new version and determined a conflict between the EPA's COC list and the dioxin/furan TEQ PRG.]
3. Resolution: ~~EPA will delete the Lead PRG for RAO 6 because there are no ecological lead risks in the BERA, except for benthic, which is addressed by the lead PRG for RAO 5.~~ [Done]
4. ~~EPA will review and confirm whether the RAO 1 BaPEq PRG of 42 ppb needs further revision.~~ [EPA changed this value to 12 ppb in the 12-Apr-14 version, and LWG has no objections at this time to this value (i.e., informal non-binding).]
5. Resolution: ~~EPA will move the organism plus water AWQC-based water PRGs from RAO 3 to a new surface water column under RAO 2. This is because these are bioaccumulation AWQC and RAO 2 pertains to bioaccumulation.~~ [Done in 12-Apr-14 version. LWG reviewed the new version and confirmed that the water PRGs were moved, but still does not agree fully on the list of PRGs presented as detailed in the outstanding PRG issues list.]
6. ~~EPA will revise hexachlorobenzene PRG under RAO 2 so that it is on a dry weight basis.~~ [EPA changed this value in 12-Apr-14 version. LWG reviewed this version and found discrepancies between the value in the table and the value noted in EPA's email. This value still needs confirmation.]
7. ~~EPA to provide LWG with calculation spreadsheets for pathways other than sediment direct contact.~~ [This was provided by EPA on 18-Mar-14.]
8. ~~LWG will review Item 7 information on PBDE RAO 2 tissue PRG calculations and reply to EPA with any additional questions on this PRG.~~ [The LWG reviewed the 12-Apr-14 PRG table. This PRG was developed for subsistence fish consumption, which wasn't evaluated in the BHHRA. Per LWG PRGs outstanding issues list, PRGs should be presented only for those chemicals found to pose risk in the risk assessments.]
9. ~~EPA will provide additional information to LWG on the PRG application spatial scales.~~ [Superseded by 27-Mar-14 action item.]
10. ~~EPA to provide any new questions about CBRAs and opinion on whether any changes are needed to CBRAs for FS purposes.~~ [EPA provided updated CBRAs on 4-Apr-14.]
11. EPA/LWG will work together to increase the detail of the CBRA description in the revised FS.
12. EPA and LWG need to discuss after any CBRAs are complete how benthic PRGs can be made consistent with the CBRA approach. [LWG reviewed 12-Apr-14 PRGs table for this issue. This was discussed on 24-Apr-14, but LWG and EPA disagreed on the appropriate benthic PRGs.]

**27-Mar-14 Meeting Action Items and Resolutions on PRGs:**

1. EPA to check whether draft FS capping evaluation still OK for revised FS purposes (i.e., determine whether new water PRGs need to be added to this analysis or not). EPA indicated capping evaluation is not a PRG issue. This will be done in screening of alternatives in section 3 and evaluation of alternatives in Section 4. (Updated per 4/4/2014 email from Kristine Koch)

<sup>1</sup> Items completed are indicated with strikethrough.

2. ~~EPA will consider whether to create a water PRG column under RAO 6 and move the bioaccumulation water TRVs for PCBs and DDT to RAO 6 (similar to changes agreed to for human health). [EPA's 12-Apr-14 version of PRGs table added this column. The LWG reviewed this column and had no issues stated in the outstanding PRGs list of 23-Apr-14.]~~
3. ~~Kristine and Burt will discuss whether manganese PRG for RAO 8 should be changed (i.e., potentially come off the RAO 8 PRG list, changed to "source" rationale, or moved to another RAO). [No changes made in EPA's 12-Apr-14 version of PRGs table. LWG reviewed the table and continues to disagree that "source" PRGs should be presented.]~~
4. ~~EPA will change the RAO 8 PRG value for 1,1-DCE from 47 ug/L to 25 ug/L. EPA indicated this is done per 4/4/2014 email from Kristine Koch. [Change made in EPA's 12-Apr-14 PRGs table.]~~
5. ~~EPA will provide updated PRG/COC tables to LWG including additional description of the PRG spatial scales. [Updated PRG/COC tables provided on 12-Apr-14. New spatial scales were provided on 18-Apr-14, which LWG is currently reviewing.]~~
6. ~~LWG to provide list of detailed questions or concerns on each spatial scale footnote from Item 5, as necessary. See action items from 15-Apr-14 meeting regarding spatial scales. [This item was superseded by EPA's new spatial scales on 18-Apr-14, which LWG is currently reviewing.]~~
7. ~~EPA and LWG will list specific PRG and COC issues that have yet to be resolved and compare lists regarding those outstanding items. (Dates will eventually need to be set for resolution of outstanding items.) EPA indicated they do not have any issues with COCs or PRGs (per 4/4/2014 email from Kristine Koch). Additional discussion regarding spatial scales for various PRGs occurred during the 4/15 technical meeting. LWG reviewed EPA's 12-Apr-14 COCs and PRGs tables and will provide a list of outstanding items on 23-Apr-14.~~
8. ~~EPA still considering bird egg PRG for dioxin and will inform LWG of any value proposed for this PRG. [LWG is reviewed EPA's 12-Apr-14 PRG table for this issue. See outstanding list of issues from LWG on 23-Apr-14.]~~

FS Revision Process Matrix Outstanding PRG Action Items: See previous sheets on COCs and PRGs.

### **Revised FS SDU Meeting - Issues 3.2. Draft Action Items for 27-Mar-14 Meeting.<sup>1</sup>**

#### **27-Mar-14 Meeting Action Items and Resolutions on PRGs:**

1. EPA to consider whether any additional information is needed to make decisions about SMA changes for the revised FS and inform LWG of those information needs. EPA indicated that SMA decisions have no bearings on SDUs, this is a 3.8 issue. (Updated per 4/4/2014 email from Kristine Koch). Spatial application of PRGs to SMA post-cleanup areas could affect SDU analysis (e.g., effectiveness). To be discussed at a later date.
2. EPA to complete SDU analysis, which is expected to include evaluation of risk reduction.
3. ~~EPA will provide a copy of the SDU presentation to LWG. [Presentation provided on 28-Mar-14.]~~

FS Revision Process Matrix Outstanding SDU Analysis Action Items: None.

<sup>1</sup> Items completed are indicated with strikethrough.

**Revised FS Technology Application, TZW areas, and SMAs - Issues 2.4 through 2.8, 3.7, and 3.8. Draft Action Items for 01-Apr-14 Meeting.<sup>1</sup>**

1. ~~EPA provide slides of their presentation [EPA provided presentation on 1-Apr-14.].~~
2. ~~EPA to provide EPA's draft GIS mapping layers harbor wide showing 1) technology selections for each pixel, 2) the criteria score for each pixel and 3) a bullet list of assumptions or processing steps used for any layers that were not taken straight from the draft FS (e.g., debris mapping differed from FS).~~
3. ~~LWG to provide additional information to EPA: the Sept 2002 and Feb/Mar 2004 bathymetry data — these data sets were missing or corrupted from the previous CDs/DVDs provided to EPA earlier. File format should be raster or grid file in ArcGIS format with 1 meter max pixel size/grid spacing.~~
4. ~~LWG to provide: the "Site Dredging and Capping Activities" map Figure 2.4-4 from the Draft FS. File format should be an ArcGIS shape file or polygon file in a geodatabase.~~
5. ~~LWG to update FS revision process matrix with items still yet to be discussed (for tracking purposes).~~

FS Revision Process Matrix Outstanding Technology, TZW, or SMA Action Items:

1. Decision regarding final shapes of SMAs for revised FS to be discussed on May 8.

**Technology Screening Second Meeting – Issues 2.8. Draft Action Items for 24-Apr-14 Meeting.**

1. ~~LWG will provide written information for the specific suggestions on the technical criteria changes discussed in the meeting. [Done. Provided on 2-May-14].~~
2. ~~LWG to provide GIS layer for additional structure restrictions to EPA. [Done. Provided on 29-Apr-14.]~~
3. LWG provide any available information on cobble, hardpan, bed rock criteria.
4. LWG provide an assessment of "constructability step" of the technology evaluation (i.e., what are the common themes or rules that LWG would suggest for this).

FS Revision Process Matrix Outstanding Technology, TZW, or SMA Action Items: None.

1. None.

<sup>1</sup> Items completed are indicated with strikethrough.

**Principal Threat Waste and Spatial Scales – Issues 3.5 and 2.3 Draft Action Items for 15-Apr-14 Meeting.<sup>1</sup>**

1. Conduct later discussion of PTW evaluation steps.
2. ~~EPA provide PRG spatial scales (bullet list) for each RAO.~~ [EPA provided this on 18-Apr-14. Done.]
3. LWG provide some suggestions on replacement values for various FS analysis.
4. LWG consider and propose methodologies for the residual risk analysis concept for revised FS.

FS Revision Process Matrix Outstanding Technology, TZW, or SMA Action Items: None.

2. LWG review EPA PTW memo and presentation and provide feedback to EPA.

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<sup>1</sup> Items completed are indicated with strikeout.